

**FLUORESC EIN-CYANINE 5 AS A FLUORESCENCE RESONANCE ENERGY
TRANSFER PAIR**

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ABSTRACT OF THE DISCLOSURE

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A method is provided for detecting the proximity of a first molecular segment to a second molecular segment. The method comprises covalently attaching fluorescein to a first molecular segment, covalently attaching cyanine 5 to a second molecular segment, and detecting the presence or absence of fluorescein-induced emission of cyanine 5 as a result of fluorescence resonance energy transfer when the first molecular segment and second molecular segment are in proximity to each other. Compositions and compounds comprising the fluorescein and cyanine 5 pair are also provided.